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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,362	11/21/2003	Jack French	French-ARI-PA	3592
27119	7590	01/23/2008	EXAMINER	
ALBERT W. WATKINS 30844 NE 1ST AVENUE ST. JOSEPH, MN 56374			MILLER, CARL STUART	
ART UNIT		PAPER NUMBER		
3747				
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/719,362	FRENCH, JACK
	Examiner Carl S. Miller	Art Unit 3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 October 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-5,8-13,15-18,21 and 22 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 22 is/are allowed.
- 6) Claim(s) 1,3-5,8-13,15-18 and 21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Knapp ('720)

In particular, the Figure of Knapp clearly shows that the injector housing is composed of parts that are held together with either screw threads or screws. This fact means that the parts are replaceable in the same way that applicant's parts are replaceable since this is how the applicant's injector housing is constructed.. Element (154) contains the passage of Claim 5 and the identifiable characteristic of the replaceable part would simply be the structure of the part itself. For example, the seat disk (144) looks different if the hole is simply made larger or smaller.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by French ('616)

In particular, French teaches all of the limitations of Claim 1 and also teaches an element (28) that will act as either the claimed needle guide of the lock mechanism for the valve seat.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knapp in view of Hornby ('176)

Knapp applies as noted above and Hornby teaches a flat needle disk that could obviously be made of sheet material and a method of adjusting the spring pressure by relocating a spring support element. The process of changing the spring force will also alter the fully open needle height.

It would have been obvious to change the spring force of Knapp as taught by Hornby because Knapp already taught the use of an adjustable stop for the spring and that stop was even easier to adjust since its position is determined by a set of screw threads.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over French in view of Hornby.

French applies as noted above and Hornby teaches the use of plural passages in element (14) that are adjacent to the valve seat. Since the French device also uses a

disk member, it would have been obvious to use an additional passage member in French.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12-13, 15-18 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the applicant discloses the idea of color coding or specifically marking (bar coding (?)) certain parts of the injector but discloses not way of knowing what these markings mean. Furthermore, there is no mention of the fact that these markings would allow a technician to discern geometries that would not be visually discernible as required by new Claim 12.

Claim 22 is allowed.

Applicant's arguments filed 10/01/07 have been fully considered but they are not persuasive. In particular, the applicant argues that his claimed method and apparatus will allow a technician to replace components of the injector in the field and obtain changes in the response characteristics of the injector that would not be possible

without the indicia claimed. The problem with this argument is that certain changes in the performance of the injector could be identified simply from the visual appearance of the elements and it does not matter that extremely small, visually indistinguishable, changes could not be detected. For example, the applicant points out in his specification that a change in the length of the needle, the number of coils on the solenoid or the thickness of the disk are examples of the changes that could be made. These changes may or may not be large enough to visually discern, but the current claim limitations (of Claims 1, 3-5 and 8-11) only require that some changes of this nature be visually discernible. The color coding of parts or the specific marking of parts is not specifically claimed and it should be noted that even these techniques would require the technician be familiar with the particular characteristics of each marking or color. As the newly cited prior art illustrates, the bar coding of injector parts would allow the technician to discern very small changes in the elements but even this technique would require the use of a reader and data base in conjunction with the bar coding. Of course, none of these techniques has been claimed and there is a serious question regarding whether or not such claims could be supported by the current specification.

Finally, the new limitations added to the injector structure of Claim 22 do distinguish over the prior art and this claim has been allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl S. Miller whose telephone number is 571-272-4849. The examiner can normally be reached on MTWTHF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin, can be reached on 571-272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

/Carl S. Miller/
Primary Examiner
Art Unit 3747